

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level, North Pacific Ocean, July 1935, at selected stations.

Station	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	<i>Inches</i>	<i>Inch</i>	<i>Inches</i>		<i>Inches</i>	
Point Barrow	29.83	-0.04	30.32	5	29.42	26
Dutch Harbor	29.95	+0.01	30.56	31	29.44	17
St. Paul	29.86	+0.02	30.30	31	29.50	2
Kodiak	29.98	+0.04	30.20	25	29.50	20
Juneau	30.07	+0.02	30.27	17	29.81	1
Tatoosh Island	30.07	+0.02	30.27	28	29.85	22
San Francisco	29.84	-0.01	30.09	8	29.72	1
Mazatlan	29.87	+0.01	29.98	30	29.50	28
Honolulu	30.00	-0.02	30.06	21	29.92	26
Midway Island	30.11	-0.00	30.22	9	30.00	7
Guam	29.78	-0.06	29.88	15	29.52	24
Manila	29.71	-0.03	29.82	1, 15	29.58	21
Hong Kong	29.59	-0.03	29.76	2, 11	29.23	30
Naha	29.71	-0.01	29.81	1	29.40	27
Chichishima	29.89	+0.04	30.00	14	29.72	7
Nemuro			30.00	10	29.58	29

¹ Based on data for 19 days only.

NOTE.—Data based on 1 daily observation only, except those for Juneau, Tatoosh Island, San Francisco, and Honolulu, which are based on 2 observations. Departure are computed from best available normals related to time of observation.

Cyclones and gales of the temperate zone.—The deepest extra-tropical cyclone of July occurred over extreme northwestern waters early in the month. At Attu Island, in the extreme western Aleutians, barometer readings as low as 29.08 inches, on the 1st, and 29.06, on the 2d, were recorded. The cyclone affected most of the Bering Sea and adjacent Pacific from the 1st to 3d, thereafter gradually retreating northwestward and filling in. The only gales of record in connection with the disturbance were of force 8 from south-southeast near 52° N., 171° W., on the night of the 1st-2d. A gale in the same vicinity on the 22d attained force 9.

From the 10th to 12th a depression of moderate energy lay about midway between the Hawaiian Islands and Alaska, and caused local gales of force 8 in the neighborhood of 44° N., 154-155° W., on the 10th and 11th, and of force 9, near 39° N., 145° W., early on the 12th.

The weather off the central California coast was disturbed by moderate to fresh local northerly gales on the 1st, and by moderate to strong local northerly gales on the 17th and 18th.

Tropical disturbances.—During July 1 disturbed conditions prevailed off the Mexican coast between Acapulco and Manzanillo. The American motorship *City of San Diego* received a radio report that a cyclone was moving up the coast, and made port at Manzanillo, arriving at noon in a southeasterly gale of force 8. The American steamship *Missourian* reported a wind of force 7 in the vicinity earlier in the day. No further development of the disturbance has been indicated.

In the Far East a similarly disturbed and apparently undeveloped condition prevailed during a part of the 2d and 3d in the neighborhood of 21° N., 142-143° E., where the British motorship *Silverash* encountered fresh to strong southerly gales, with slightly depressed barometer.

In connection with the subjoined Manila report, furnished by the Rev. Bernard F. Doucette of the Manila Observatory, the following additional items are presented relative to the two typhoons described:

During the passage of the typhoon of the 15th-23d, a pressure reading of 29.16 inches was reported at Ishigakijima Island on the 20th, and a northwest gale of force 8 occurred in the Luzon Strait on the 19th.

While the typhoon of July 22-31 lay east of Taiwan (Formosa) on the 28th, a report from Ishigakijima Island gave a barometer of 28.98 and a northwest gale of force 8. About 100 vessels took refuge in Kelung harbor on the 29th. The storm passed over Taiwan late on that date, temporarily isolating the island on account of extensive damage to communications lines.

Fog.—Fog was the most important meteorological element affecting travel along the northern routes. To the northward of the 40th parallel, it was reported on from 3 to 15 or more days within the several 5° squares, with a general increase westward from the Washington and Oregon coasts to the region of maximum formation between the 180th meridian and 150° E. A number of ships made specific comments upon the extent to which it was observed.

The British motorship *Silverguara* reported 86 hours of continuous fog, from 4 p. m., of the 4th, in 43°43' N., 140°00' W., until 6 a. m. of the 8th, in 46°48' N., 168°10' W.

The American motorship *Ward* reported mostly thick fog, with only short periods of clearing, from 5 a. m., July 17, in 40°23' N., 159°16' E., until 10 p. m., July 23, in 44°13' N., 150°00' W.

The American steamship *President Jefferson* had 88 hours of practically continuous dense fog banks from the 180th meridian westward, July 13 to 16.

There were 11 days with fog along the California coast, and 5 days with fog along the coast of Lower California.

The New York Maritime Register reported the sinking of the Japanese steamship *Midori Maru*, with the loss of 104 lives, due to a collision with another steamer in fog southwest of Kobe on July 3.

TYPHOONS AND DEPRESSIONS OVER THE FAR EAST, JULY 1935

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Two typhoons and two depressions form the total of the disturbances which affected the weather of the lower latitudes in the Far East during July 1935. Of these, the typhoon of July 22 to 31 was the most important. Details of each of these storms follow.

Depression, July 12 to 16.—Forming about 200 miles ENE. of San Bernardino Strait, this depression moved WNW., gradually inclining to the NW. and crossing northern Luzon. Changing to a westerly course as it entered the China Sea, it continued along this course to Indo China. This depression was of little importance. The positions, day by day, of the depression are given below:

	Latitude N.	Longitude E.
July 12, 2 p. m.	14 40	127 40
July 13, 6 a. m.	15 30	123 30
July 14, 6 a. m.	18	116
July 15, 6 a. m.	19	109 30

Typhoon, July 15 to 23.—Appearing between Yap and Palau, a depression moved NW. to a position about 150 miles east of central Luzon, where it intensified as it changed to a northern course. When about 120 miles east of Basco, Batanes Islands, it shifted for a short time to the NE., then N. again, to a position close to the Sakishima Group. There, it inclined to the NW. and proceeded to the China coast, filling up within 24 hours

after entering the Continent. The approximate positions, day by day, are given as follows:

	Latitude N.	Longitude E.
July 15, 6 a. m.-----	8 20	135 40
July 16, 6 a. m.-----	10 30	130 50
July 17, 6 a. m.-----	14 20	126
July 18, 6 a. m.-----	19	123 50
July 19, 6 a. m.-----	20 40	125
July 20, 6 a. m.-----	21 50	125
July 21, 6 a. m.-----	23 50	125
July 22, 6 a. m.-----	25 50	123 30
July 23, 6 a. m.-----	27 30	119

Typhoon, July 22 to 31.—After an irregular course over the Western Caroline Islands and the Ladrone Islands, this typhoon moved quite rapidly along a northwest course across the ocean. It changed to the west when approaching the Nansei (Loochoos) Islands, crossed Formosa and entered the continent. The daily positions are listed below:

	Latitude N.	Longitude E.
July 22, 6 a. m.-----	10	145
July 23, 6 a. m.-----	10 40	142
July 24, 6 a. m.-----	14 30	142
July 25, 6 a. m.-----	17	143
July 26, 6 a. m.-----	18	139
July 27, 6 a. m.-----	20 40	133
July 28, 6 a. m.-----	23 20	129
July 29, 6 a. m.-----	23 30	124
July 30, 6 a. m.-----	24	119 30
July 31, 6 a. m.-----	24	114

There was considerable destruction over Formosa as this typhoon crossed the island, but details are not yet available. Over the Philippines, rains caused great damage along the western coast of Luzon and over the

provinces between Manila and Baguio. Reports from the U. S. S. *Gold Star*, the steamship *Steel Seafarer*, the steamship *Penrith Castle*, showed that the southwest winds of this typhoon were strong and prevailed over a very wide area. Without a doubt, this was the most important typhoon of the month.

A few remarks are in order concerning the movement of this typhoon on July 24. On the two preceeding days, it had recurved from a west northwest course to a northeast course and was, on July 24, moving quite fast about 200 miles northwest of Guam. Late in the afternoon, however, it slowed down and was almost stationary, about 200 miles north of the island. During the night, it began to move northwest and the morning of the 25th found it started on its journey to Formosa. These details concerning the movement at these times have been obtained from the hourly observations sent to the observatory through the kindness of the officials of the Commercial Pacific Cable Co., and from the observations of the steamship *Nemea*. It seems that a high-pressure area developed northeast of Guam, but, as Guam is on the border of the region of observation, this explanation will have to be verified when weather maps of the whole north Pacific arrive.

Depression, July 25 and 26.—This depression, of little importance, formed east of Luzon, then moved north-northwest to combine with the typhoon just described above. The approximate positions during these 2 days are given below:

	Latitude N.	Longitude E.
July 25, 6 a. m.-----	16 10	129
July 26, 6 a. m.-----	17 30	128 40

CLIMATOLOGICAL TABLES

CONDENSED CLIMATOLOGICAL SUMMARY

In the following table are given for the various sections of the climatological service of the Weather Bureau the monthly average temperature and total rainfall; the stations reporting the highest and lowest temperatures, with dates of occurrence; the stations reporting the greatest and least total precipitation; and other data as indicated by the several headings.

The mean temperature for each section, the highest and lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperatures and precipitation are based only on records from stations that have 10 or more years of observations. Of course, the number of such records is smaller than the total number of stations.